

WHAT IS CLAIMED:

1. An air control system, comprising:

a sensor, wherein said sensor detects an environmental characteristic of an enclosed environment and wherein said sensor produces a signal representative of the detected environmental characteristic; and,

a single controller, wherein said single controller receives said signal and wherein said single controller utilizes said signal to determine if the detected environmental characteristic is within a predetermined operating range, and wherein upon said detected environmental characteristic being outside said desired operating range said single controller produces an output signal;

wherein said output signal provides instruction to max out the operation of a device capable of affecting said environmental characteristic until said environmental characteristic is within said predetermined operating range, and wherein said device is selected from a group consisting of: a vent air actuator, a combustion air actuator, and the combination of a vent air actuator and combustion air actuator.

2. The air control system of claim 1, further comprising a plurality of appliances, wherein the operation of said plurality of appliances affects said environmental characteristic, and wherein said single controller individually interfaces with each of said plurality of appliances to individually control the operation of each of said plurality of appliances.

3. The air control system of claim 1, wherein said sensor is selected from a group consisting of: a pressure sensor, a temperature sensor, a humidity sensor, a particulate sensor, and a density sensor.

5 4. The air control system of claim 1, wherein said single controller includes an interface for communicating with an external electronic management system.

5. The air control system of claim 1, wherein said single controller includes memory for retaining historical data regarding operation of said sensor, said vent air actuator or said
10 combustion air actuator.

6. The air control system of claim 1, wherein said vent air actuator is selected from a group consisting of: a variable speed fan, a fixed speed fan and modulating damper, a variable speed fan and modulating damper, and a modulating damper.

15 7. The air control system of claim 1, wherein said combustion air actuator is selected from a group consisting of: a variable speed fan, a fixed speed fan and modulating damper, a variable speed fan and modulating damper, and a modulating damper.

8. A method for controlling air in an enclosed environment, the method comprising the
20 steps of:

sensing an environmental characteristic of said enclosed environment;

producing a signal representative of the sensed environmental characteristic;

receiving said signal via a single controller;

determining with said single controller whether said signal is within a predetermined operating range;

producing an output signal with said single controller upon determining that said signal is outside said predetermined operating range; and

5 maxing out operation of a device to affect said environmental characteristic, in accordance with said output signal, until said environmental characteristic is sensed to be within said predetermined operating range, wherein said device is selected from a group consisting of: a vent air actuator, a combustion air actuator, and the combination of a vent air actuator and a combustion air actuator.

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9. The method of claim 8, further comprising the step of interfacing said single controller to a plurality of appliances and individually controlling the operation of each of said plurality of appliances with said single controller to affect said environmental characteristic of said enclosed environment.

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10. The method of claim 8, wherein said step of sensing is performed with a sensor selected from a group consisting of: a pressure sensor, a temperature sensor, a humidity sensor, a particulate sensor, and a density sensor.

20 11. The method of claim 8, further comprising the step of communicating, via said single controller, with an external electronic management system.

12. The method of claim 8, further comprising the step of retaining historical data regarding said steps of sensing and adjusting.

13. The method of claim 8, wherein said step of adjusting is performed by: a variable speed fan, the combination of a fixed speed fan and modulating damper, the combination of a variable speed fan and modulating damper, or a modulating damper.

14. An air control system for an enclosed environment, comprising:

means for sensing an environmental characteristic of said enclosed environment;

means for producing a signal representative of the sensed environmental characteristic;

single control means for receiving said signal, for determining whether said signal is within a predetermined operating range, and for producing an output signal upon determining that said signal is outside said predetermined operating range; and

means for affecting said environmental characteristic, wherein said means for affecting receives said output signal and in response thereto maxes out its operation until said single control means determines that said signal is within said predetermined operating range.

15. The system of claim 14, wherein said single control means additionally for interfacing to a plurality of appliances and individually controlling the operation of each of said plurality of appliances to affect said environmental characteristic of said enclosed environment.

16. The system of claim 14, wherein said means for sensing is selected from a group consisting of: a pressure sensor, a temperature sensor, a humidity sensor, a particulate sensor, and a density sensor.

5 17. The system of claim 14, wherein said single control means additionally for communicating with an external electronic management system.

18. The system of claim 14, wherein said single control means additionally for retaining historical data regarding the sensed environmental characteristic.

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19. The system of claim 14, wherein said means for affecting is selected from a group consisting of: a variable speed fan, the combination of a fixed speed fan and modulating damper, the combination of a variable speed fan and modulating damper, and a modulating damper.

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